ABSTRACT OF THE DISCLOSURE

A semiconductor device on a semiconductor substrate, which provides for effective use of characteristics of the semiconductor substrate, is provided. A P-channel MOS transistor is provided on an SOI substrate which is formed by aligning an SOI layer (3) having a <100> crystal direction and a supporting substrate (1) having a <110> crystal direction so as to allow the respective crystal directions to be parallel to each other. Then, a portion of the supporting substrate 1 is removed to form a hollow portion (HL1), to produce a strain in a channel region. Specifically, as a result of formation of the hollow portion (HL1) by removing a portion of the supporting substrate (1), a tensile stress is caused on an oxide film layer (2) and an SOI layer (3) located above the hollow portion (HL1). This results in production of a strain in the SOI layer (3) which includes the channel region of the MOS transistor, thereby to increase carrier mobility of a channel.